

Appl. Serial No. : 10/621,803
Submission under 37 C.F.R. § 1.114 dated August 17, 2006
Reply to Office Action of July 24, 2006

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the Application.

Listing of Claims

44. (New) A device for amplifying and detecting a target nucleic acid, comprising:
 - a solid support bead having a surface;
 - an amplification primer immobilized to the surface of said solid support bead, said amplification primer comprising a promoter sequence for an RNA polymerase and a sequence complementary to a first strand of said target nucleic acid; and
 - a labeled hybridization probe immobilized to said surface,
 - wherein said labeled hybridization probe comprises a sequence complementary to an amplicon synthesized using said amplification primer and said target nucleic acid as a template in a nucleic acid amplification reaction, and
 - wherein prior to contact of said device with any nucleotide polymerizing enzyme said labeled hybridization probe comprises a detectable label and is immobilized to said surface.
45. (New) The device of Claim 44, wherein said surface comprises a material selected from the group consisting of glass and plastic.
46. (New) The device of Claim 45, wherein said amplification primer immobilized to said surface is covalently immobilized to the surface of said solid support bead.

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47. (New) The device of Claim 45, wherein said labeled hybridization probe immobilized to said surface is covalently immobilized to the surface of said solid support bead.

48. (New) The device of Claim 45, wherein said amplification primer and said labeled hybridization probe are each covalently immobilized to the surface of said solid support bead.

49. (New) The device of Claim 44, wherein said labeled hybridization probe comprises a fluorephore moiety and a quencher moiety.

50. (New) The device of Claim 44, wherein said device comprises two labeled hybridization probes immobilized to said surface, and wherein said two labeled hybridization probes comprise different sequences.

51. (New) The device of Claim 50, wherein prior to contact of said device with any nucleotide polymerizing enzyme there is immobilized to the surface of said solid support bead only one amplification primer sequence having a 3'-end that can be extended by a DNA polymerase using as a template said first strand of the target nucleic acid or the complement thereof.

52. (New) The device of Claim 44, wherein prior to contact of said device with any nucleotide polymerizing enzyme there is immobilized to the surface of said solid support bead only one amplification primer sequence having a 3'-end that can be extended by a DNA polymerase using as a template said first strand of the target nucleic acid or the complement thereof.

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53. (New) A kit for detecting a target nucleic acid, comprising:
- a device in accordance with Claim 44;
 - a soluble oligonucleotide primer that is not immobilized to the surface of said solid support bead; and
 - a positive-control nucleic acid amplifiable in a nucleic acid amplification reaction using said amplification primer in combination with said soluble oligonucleotide primer.